

2.12 Controlling

The Controlling module of the SCEIS solution is designed to provide management and other internal decision-makers with the necessary information for managing, controlling, and optimizing the business processes of an organization. The Controlling module documents actual business events and facilitates cost planning down to a detailed level. Plan data can be compared with actual data to determine variances.

2.12.1 Organizational Structures

The Controlling module includes one primary organization structure that is defined statewide:

- **Controlling Area** – An organizational unit within the Controlling module that represents a closed system used for cost accounting purposes. The State will have only one controlling area, which will be represented by the code SC01.

2.12.2 Cost Accounting

Objective

Cost accounting is the process of accumulating, measuring, analyzing, interpreting, and reporting cost information useful to those concerned with the way in which an organization controls and accounts for its resources to meet its business/program objectives. Cost accounting benefits those who need to know how much business processes are costing the organization. Efficient cost accounting and controlling features are necessary for public sector organizations to understand the actual costs of their services or products, recognize underutilized resources, identify inefficient activities, and take immediate advantage of opportunities for true cost savings. It offers a framework to aid decision-makers with short and long-term program planning and it can help identify measures for streamlining and improving operations for the State.

Process Definition

Master Data

- **Cost Centers** - Organizational units within a controlling area that represent a clearly delimited location where costs occur. Cost centers will be determined based on the State's organizational structure. Cost centers act as accumulators to collect cost information for reporting purposes. It is recommended that a cost center be defined to have a manager, a headcount, occupy space, and be material (significant enough for analysis). Assigning costs to cost centers will let the State determine where costs are incurred within the organization. If costs are planned at the cost center level, the State will be able to check cost efficiency at the point where costs are incurred. If the State wants to assign overhead costs accurately to individual products, services, or market segments, the costs need to be further allocated to those cost centers directly involved in the creation of the products or services. Initially, there will be a one to one mapping between cost centers and funds centers.
- **Internal Orders** - Internal orders are cost objects in the Controlling module, which are used to plan, collect, and settle the costs of internal jobs and tasks. Internal orders are usually used for short-term projects or programs. Internal orders can also be used as a cost collector for areas where no manager exists or no headcount is defined (i.e. in lieu of a cost center).
- **Activity Types** - Units that classify the activities performed in a cost center. Typical examples are man-hours, CPU minutes or cases managed. You can plan, allocate, and control costs either at the activity type level of a cost center, or at the cost center level. You can assign one activity type, multiple activity types, or no activity types to a cost center.
- **Primary Cost Elements** - A primary cost element is a cost-relevant item in the chart of accounts, for which a corresponding general ledger account exists in the Financial Accounting module.
- **Secondary Cost Elements** – Support the internal movement of costs between cost objects, such as those found in internal activity allocations, overhead calculations and settlements. Secondary cost elements can only be created and administrated in the Controlling module and do not have corresponding general ledger accounts. Activity types are a classic example of secondary cost elements.

- **Statistical Key Figures** - Statistical key figures (SKF) are used as a basis for internal allocations. Telephones, computers, and headcount are common examples of statistical key figures. One example of how SKFs are used is the allocation of costs for a copier to the individual cost centers using the copier, based on the number of employees in each cost center. To do this, you need to enter the number of employees in each cost center as a statistical key figure and then execute the assessment based on headcount. Agency users with the appropriate role(s) will be able to update these SKFs as needed.

Allocations

The carrying out of cost allocations is one of the Controlling module's most important functionalities. As costs are being incurred by the State and postings are being made in the system, the costs are assigned to cost collecting objects within the Controlling module. The cost objects are initially updated in the Controlling module with financial postings at goods receipt. At period-end, cost allocations are executed based on a set of pre-defined rules. Allocation refers to the process of assessing or distributing amounts and quantities from one sender cost object to one or more receiver cost objects, for example, from one cost center to multiple cost centers.

Cost allocations take cost values, which are often collected temporarily on one cost object, and spread them over any number of other cost collecting objects to more accurately portray the location of cost incurrence. Overhead and indirect costs can be temporarily collected in one place, for example cost centers or internal orders, and at period-end they can be spread across those entities that were actually responsible for the cost incurrence. For example, copier costs may be distributed based on the number of employees in each cost center. Telephone costs are seldom allocated directly to the individual cost centers, but are collected in a clearing cost center for each period. The costs are then distributed at the end of the period according to the number of telephones in each cost center. Cost allocations in the SCEIS solution will help identify the actual cost of a service or specific program.

There will be no statewide allocations within the State. This means no costs collected at the central government level will be allocated out to individual agencies. However, there will be significant utilization of cost allocations at the agency level. Each agency will have the ability to determine to what extent it wishes to perform cost allocations and the rules by which they are allocated. The SCEIS solution's cost allocation functionality can be very beneficial and it is recommended that every agency incurring indirect and/or overhead costs use this functionality in order to gain a better understanding of where costs are being incurred. Cost allocations, for all

agencies within the State, will be executed simultaneously at period-end. The State will centrally coordinate timing for cost allocations, and agencies will not be able to execute allocations individually. Agencies will, however, have the ability to execute allocation test runs in the SCEIS solution. This means each agency will be able to evaluate “what if” allocation scenarios on live system data at any time.

The SCEIS solution will support several different types of allocations, which will allow costs to be allocated based on a number of different factors. State-defined keys, based on agency needs, such as percentage rates, amounts, statistical key figures, or posted amounts provide the cost/quantity assignment basis.

Cost Planning

Cost planning involves entering plan figures for costs, activities, prices or statistical key figures for a particular cost center and a particular planning period. As business activities are performed, the values of costs incurred make their way into the system. Variances between plan and actual costs are then determined. These variances can help managers by highlighting areas where target levels are not being met.

Cost center planning consists of the following areas:

- Planning of costs expected to be incurred
- Planning statistical key figures, which are used as the basis for the allocation of costs

In this way the Controlling module will be used to plan and control at the most detailed level, while high-level budgeting will be performed in Funds Management. Reports will be developed that tie plan data from the Controlling module together with actual and encumbrance data in Funds Management. By viewing these reports managers will be able to see how their detailed plan is functioning in the Controlling module, while maintaining a separate budget at a higher level in Funds Management.

Reconciliation of Controlling to Financial Accounting

The State will be able to update Financial Accounting for internal Controlling module postings that cross certain organizational units. The SCEIS solution’s FI/CO reconciliation ledger will be activated in the Controlling module, which will then summarize cross-organizational cost and revenue movements and update Financial Accounting. For external financial accounting

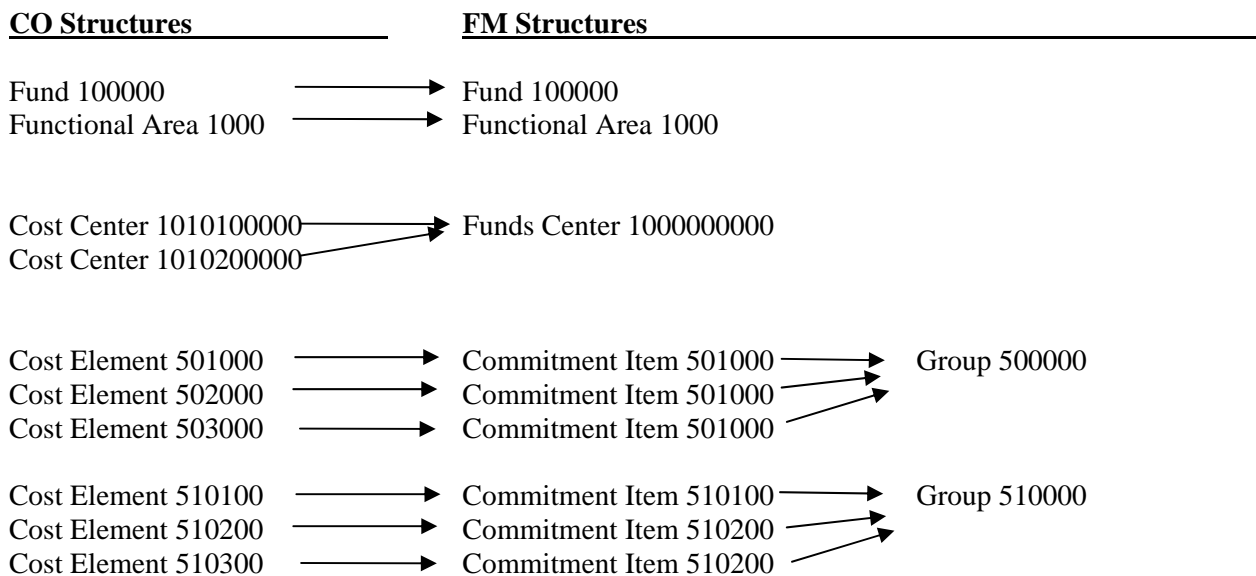
purposes, the State will be able to use cost and revenue movements across business areas, funds, functional areas, and grants.

Operational Control in the Controlling Module

The following is an example of how to achieve detailed operational control through reporting of Controlling module plan data against funds management actual and encumbrance data, and while maintaining legal operational control through on-line availability control in Funds Management.

This first exhibit identifies how cost objects in the Controlling module (CO) can correspond to budget objects in Funds Management (FM). Multiple cost centers in Controlling can roll-up to one fund center in Funds Management. This structure allows for more detailed operational control in Controlling with higher-level legal budgetary control in Funds Management.

Exhibit 2.12.2-1 Controlling and Funds Management Relationship



The following exhibit displays how a detailed operational plan can be set up in the Controlling module with the legal budget controlled in Funds Management. In this example, a legal budget of \$1,500,000 has been set for the combination of fund center 1000000000 and commitment item group 500000, and a legal budget of \$500,000 has been set for the combination of fund center 1000000000 and commitment item group 510000. Since these two legal budgets are set in Funds Management, there will be hard edits that will not allow expenditures to exceed budget. However, in the Controlling module a corresponding detailed operational plan has been created that breaks the combination of fund center 1000000000 and commitment item group 500000 into five

operational plan elements. The combination of fund center 1000000000 and commitment item group 510000 has been broken up into seven operational plan elements in the Controlling module. These operational plan elements reside only in the Controlling module. They each represent the combination of a cost center and a cost element and each is assigned planned expenditure values for the period. The planned expenditure values may be exceeded if necessary within the operational plan detail in the Controlling module as long as the legal budget in Funds Management is not exceeded. This functionality allows for detailed planning and cost control without transferring budget each time the planned costs are exceeded. The State can revise the planned expenditure values in Controlling even after planned values have been exceeded.

Exhibit 2.12.2-2 Controlling Detail Plan vs. Funds Management Legal Budget

<u>Detailed Operational Plan</u>			<u>Legal Budget</u>		
Fund 100000 Functional Area 1000			Fund 100000 Functional Area 1000		
<u>Cost Ctr</u>	<u>Cost Element</u>	<u>Plan</u>	<u>Funds Center</u>	<u>Commitment Item Group</u>	
Budget					
1010100000	501000	\$100,000	1000000000	500000	
	\$1,500,000				
1010100000	502000	\$200,000			
1010200000	501000	\$300,000			
1010200000	503000	\$400,000			
1011500100	502000	\$500,000			
1010100000	510100	\$ 10,000	1000000000	510000	\$
500,000					
1010100000	510200	\$ 20,000			
1010100000	510300	\$ 30,000			
1010200000	510100	\$ 40,000			
1011500100	510100	\$100,000			
1011500100	510200	\$100,000			
1011500100	510300	\$200,000			

In the following exhibit, the actual postings and encumbrances are reflected in Funds Management and Controlling. In Funds Management, the high-level totals reflect the amount of budget that has been used and/or encumbered. In Controlling, the totals for each operational control element, which is the combination of cost center and cost element, are displayed. The operational control element numbers combine to equal the legal budget totals in Funds Management.

Exhibit 2.12.2-3 Controlling Postings vs. Funds Management Postings

Detailed Operational Postings

Funds Management Postings

Fund 100000

Functional Area 1000

Fund 100000

Functional Area 1000

<u>Cost Ctr</u>	<u>Cost Element</u>	<u>Actual</u>		<u>Funds Center</u>	<u>Commitment Item Group</u>	
<u>Actual</u>						
1010100000	501000	\$ 85,000	→	1000000000	500000	
		\$1,400,000	→			
1010100000	502000	\$220,000	→			
1010200000	501000	\$275,000	→			
1010200000	503000	\$399,000	→			
1011500100	502000	\$421,000	→			
1010100000	510100	\$ 11,000	→	1000000000	510000	\$
328,000			→			
1010100000	510200	\$ 22,000	→			
1010100000	510300	\$ 20,000	→			
1010200000	510100	\$ 20,000	→			
1011500100	510100	\$ 40,000	→			
1011500100	510200	\$ 90,000	→			
1011500100	510300	\$125,000	→			
<u>Encumb.</u>						
1010100000	501000	\$ 10,000	→	1000000000	500000	\$
70,000			→			
1010100000	502000	\$ 10,000	→			
1010200000	501000	\$ 10,000	→			
1010200000	503000	\$ 20,000	→			
1011500100	502000	\$ 20,000	→			
1010100000	510100	\$ 5,000	→	1000000000	510000	\$
110,000			→			
1010100000	510200	\$ 10,000	→			
1010100000	510300	\$ 10,000	→			
1010200000	510200	\$ 10,000	→			
1011500100	510100	\$ 15,000	→			
1011500100	510200	\$ 20,000	→			
1011500100	510300	\$ 40,000	→			

The following exhibit displays a report that can be generated from the Funds Management module, which shows the legal budget, actual expenditures, encumbrances, and available budget for each of the combinations of funds center and commitment item group. This report also shows totals for the two groups combined. Managers within the State will be able to run this report and

see budget totals, actual expenditures, total encumbrances, and available remaining budget – on-line, real-time.

Exhibit 2.12.2-4 Funds Management Available Balances

Legal Budget Comparison (On-Line Availability Control Active)

Fund 100000
Functional Area 1000

<u>Funds Center</u>	<u>Commitment Item Group</u>	<u>Budget</u>	<u>Actual</u>	<u>Encumb.</u>	<u>Available</u>
<u>Budget</u>					
1000000000	500000	\$1,500,000	\$1,400,000	\$ 70,000	\$
30,000					
1000000000	510000	<u>\$ 500,000</u>	<u>\$ 328,000</u>	<u>\$110,000</u>	<u>\$</u>
62,000					
	Totals	<u>\$2,000,000</u>	<u>\$1,728,000</u>	<u>\$180,000</u>	<u>\$</u>
<u>92,000</u>					

The following exhibit displays another report that can be generated from the SCEIS solution. This report shows the operational plan values from the Controlling module, as well as the actual and encumbered values from the Funds Management module. The last column shows the variance between the operational plan and the funds management actuals and encumbrances. The report is broken down by operational plan element, which is the combination of cost center and cost element, and totals for each cost center and the organization as a whole are given.

Exhibit 2.12.2-5 Controlling Variance Analysis

Operational Plan Comparison (Reporting Only)

Fund 100000
Functional Area 1000

<u>Cost Center</u>	<u>Cost Element</u>	<u>CO Plan</u>	<u>FM Actuals</u>	<u>FM Encumb.</u>	<u>Variance</u>
1010100000	501000	\$ 100,000	\$ 85,000	\$ 10,000	\$
5,000					
1010100000	502000	\$ 200,000	\$ 220,000	\$ 10,000	(\$
30,000)					
1010100000	510100	\$ 10,000	\$ 11,000	\$ 5,000	(\$
6,000)					
1010100000	510200	\$ 20,000	\$ 22,000	\$ 10,000	(\$
12,000)					

1010100000	510300	<u>\$ 30,000</u>	<u>\$ 20,000</u>	<u>\$ 10,000</u>	<u>\$</u>
0					
	Cost Center Totals	<u>\$ 360,000</u>	<u>\$ 358,000</u>	<u>\$ 45,000</u>	<u>(\$</u>
43,000)					
1010200000	501000	\$ 300,000	\$ 275,000	\$ 10,000	\$
15,000					
1010200000	503000	\$ 400,000	\$ 399,000	\$ 20,000	(\$
19,000)					
1010200000	510100	\$ 40,000	\$ 20,000	\$ 0	\$
20,000					
1010200000	510200	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 10,000</u>	<u>(\$</u>
10,000)					
	Cost Center Totals	<u>\$ 740,000</u>	<u>\$ 694,000</u>	<u>\$ 40,000</u>	<u>\$</u>
6,000					
1011500100	502000	\$ 500,000	\$ 421,000	\$ 20,000	\$
59,000					
1011500100	510100	\$ 100,000	\$ 40,000	\$ 15,000	\$
45,000					
1011500100	510200	\$ 100,000	\$ 90,000	\$ 20,000	(\$
10,000)					
1011500100	510300	<u>\$ 200,000</u>	<u>\$ 125,000</u>	<u>\$ 40,000</u>	<u>\$</u>
35,000					
	Project Totals	<u>\$ 900,000</u>	<u>\$ 676,000</u>	<u>\$ 95,000</u>	<u>\$</u>
129,000					
	Organization Totals	<u>\$2,000,000</u>	<u>\$1,728,000</u>	<u>\$180,000</u>	<u>\$</u>
92,000					

If more detailed control through reporting is desired, organizational staff could then revise the detailed plan to address deficits at the detailed operational level. The legal budget does not need to be revised at all. The following report compares a revised operational plan from the Controlling module with the actuals and encumbrances from Funds Management.

Exhibit 2.12.2-6 Controlling and Funds Management Variance Comparison

Operational Adjusted Plan Comparison (Reporting Only)

Fund 100000
Functional Area 1000

Revised

Cost Center	Cost Element	CO Plan	FM Actuals	FM Encumb.	
Variance					
1010100000 5,000	501000	\$ 100,000	\$ 85,000	\$ 10,000	\$
1010100000 0	502000	\$ 230,000	\$ 220,000	\$ 10,000	\$
1010100000 4,000	510100	\$ 20,000	\$ 11,000	\$ 5,000	\$
1010100000 8,000	510200	\$ 40,000	\$ 22,000	\$ 10,000	\$
1010100000 0	510300	<u>\$ 30,000</u>	<u>\$ 20,000</u>	<u>\$ 10,000</u>	<u>\$</u>
Cost Center Totals		<u>\$ 420,000</u>	<u>\$ 358,000</u>	<u>\$ 45,000</u>	<u>\$</u>
17,000					
1010200000 15,000	501000	\$ 300,000	\$ 275,000	\$ 10,000	\$
1010200000 1,000	503000	\$ 420,000	\$ 399,000	\$ 20,000	\$
1010200000 20,000	510100	\$ 40,000	\$ 20,000	\$ 0	\$
1010200000 0	510200	<u>\$ 10,000</u>	<u>\$ 0</u>	<u>\$ 10,000</u>	<u>\$</u>
Cost Center Totals		<u>\$ 770,000</u>	<u>\$ 694,000</u>	<u>\$ 40,000</u>	<u>\$</u>
36,000					
1011500100 9,000	502000	\$ 450,000	\$ 421,000	\$ 20,000	\$
1011500100 25,000	510100	\$ 80,000	\$ 40,000	\$ 15,000	\$
1011500100 0	510200	\$ 110,000	\$ 90,000	\$ 20,000	\$
1011500100 5,000	510300	<u>\$ 170,000</u>	<u>\$ 125,000</u>	<u>\$ 40,000</u>	<u>\$</u>
Project Totals		<u>\$ 810,000</u>	<u>\$ 676,000</u>	<u>\$ 95,000</u>	<u>\$</u>
39,000					
Organization Totals		<u>\$2,000,000</u>	<u>\$1,728,000</u>	<u>\$180,000</u>	<u>\$</u>
92,000					

Process Flows

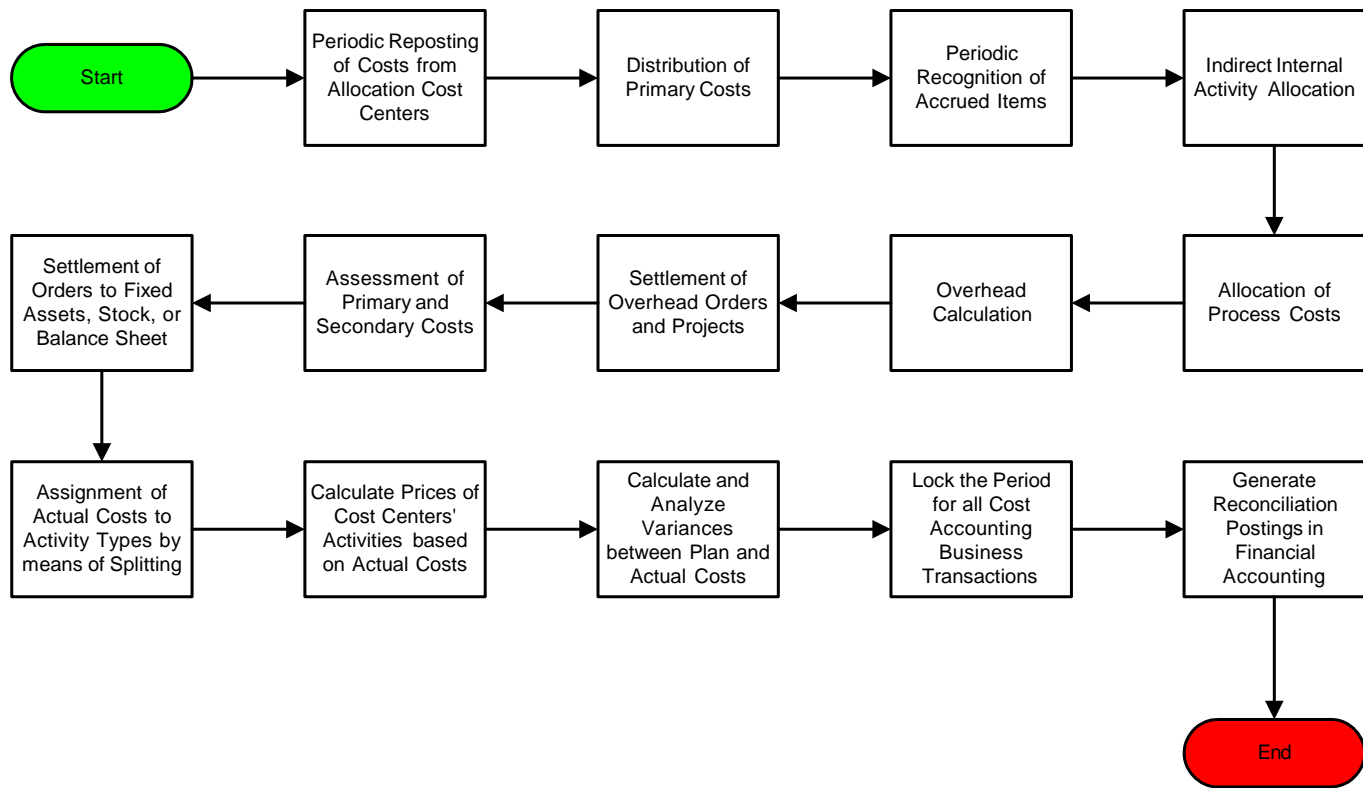
The business processes relating to the Controlling module include the following:

1. Period-end Close. This period-end close business process will be executed each month.
Periodic reposting is a posting aid that enables users to adjust postings made to cost

centers, internal orders, or WBS elements (see Project Systems). It has the same result as transaction-based reposting. The results of transaction-based repostings have a direct effect on the actual costs of the sender and the receiver, whereas periodic repostings have a one-time effect on actual costs at period-end closing. Distribution is used to allocate the primary costs of a cost center. The original cost element (primary cost element) and the sender and receiver information (for example, the identities of the sender and receiver cost center) are passed on to the receivers. The next step is periodic recognition of accrued items. Operating expenses are often allocated differently in financial accounting than in cost accounting. For example, if an expense incurred in external accounting covers a whole year, a proportion of the whole must be assigned to each individual cost accounting period. The occurring expenses are distributed irregularly, according to cost-origin, on the months in which they are incurred. This allows the user to avoid irregularities within cost accounting. Costs allocated in this manner are termed accrued costs. Additionally, deferred revenue may be collected on an internal order and distributed over numerous periods in the same way costs are handled. Indirect internal activity allocation is a method of periodic allocation to determine the input of activity indirectly allocated from the sender (cost center or activity type) from the perspective of the receiver. If you are not able to enter the activity consumed by the receiver, or it is too time-consuming, this method may be used to distribute the total activity quantity from the sender to the receivers. You can use indirect activity allocations to automatically allocate planned and actual activities. You can specify keys to allocate activity, which is not possible when you use manual activity input in the plan or actual activity allocation. In addition, if calculating the sender activity quantities involves too much time or expense, the SCEIS solution can determine the activity quantity inversely based on the activity of the receivers. The next step is allocation of process costs. Agencies that wish to track the costs of individual business processes will allocate the costs of those business processes throughout this step in the period-end close process. Overhead costing is used to allocate overhead costs through percentage-based or quantity-based overhead rates. The bases for the allocation are the primary cost elements that users post as overhead costs. During this next step overhead orders and projects will be settled to the appropriate receiving objects, most likely cost centers. Assessment is a method of allocating primary and secondary costs. The original cost elements are assigned individually, or in groups, to assessment (secondary) cost elements. The original cost elements are not recorded on the receivers. Sender and receiver information (sender cost center or receiver cost center) appears in the

controlling document. Allocation through assessment is useful when the composition of the costs is unimportant for the receiver. For example, the assessment of cafeteria costs to a cost center need not be broken down further. The next step is settlement of orders to fixed assets, stock, or the balance sheet. For the duration of this step orders not related to overhead calculation will be settled to fixed assets, stock, or the balance sheet. Actual cost splitting makes it possible to divide costs into fixed and variable portions. It can also be used to carry out plan/actual comparisons and to calculate actual prices. If the user posts actual costs exclusively to cost centers, these costs must be split on the activity types. It is only in this way that the user can compare the actual costs with the target costs of the activity types and display the variances by activity type. In the next two steps the prices of cost centers' activities are calculated and the variances between plan and actual costs are analyzed. Next the period is locked for all cost accounting business transactions and reconciliation postings in Financial Accounting are generated. The process described here is one option for recording and classifying deferred revenue. For a discussion on the CAFR impacts for the various closing packages, refer to the CAFR section of this document.

Exhibit 2.12.2-7 Allocation, Assessment and Settlement Process



Benefits

The implementation of cost accounting functionality will serve to benefit the individual agencies as well as the central operations of the State as a whole. Through the Cost Accounting workshops, a number of initial benefits for the functions were identified. These include:

- The Controlling module will allow the State to track its costs at a much more detailed level than it currently does
- Controlling will allow the State to allocate overhead and indirect costs for a more accurate picture of where costs are being incurred
- Capture costs related to activities
- Plan versus Actual comparison reports

Business Requirements

Cost allocations for the State will be executed centrally, not individually by each agency. Each agency will independently define their cost allocation structures with the SCEIS team, which will

take place during the implementation rollout. No new or additional requirements were identified in the Business Blueprint workshops.

Reporting

The system offers easy access to information on a real-time basis. Financial information can be reviewed by displaying the account balances and their line items as well as the documents that have been posted. Display parameters will determine the range of information for the account when displayed on the screen. For each period, the following is displayed:

- Total Debits
- Total Credits
- Balance DC (difference of debits and credits posted for the period)
- Account balance (cumulative)

It is possible to drill-down from this view to see the line items that make up this balance and then the document that posted the line item. This is possible only if the display line items indicator is marked in the G/L account master record. This functionality is available for all customer, vendor, and G/L accounts.

The following are initial functions available when displaying line items:

- Line Item Selection: used to select the type of line item to be viewed:
 - Open
 - Cleared
 - All
- According to their type:
 - Normal
 - Noted
 - Parked
 - Special G/L Transactions (For customer and vendor line items)
 - Vendor/ Customer items (For customer and vendor line items)

For the various controlling cost objects, the SCEIS solution will provide a variety of reports, which can display actual or plan data for different time periods. The standard report tree gives an overview of all standard reports delivered by the SCEIS solution. The main areas of reporting where the State will benefit are plan vs. actual reports and expenditure reports by cost object. The SCEIS solution will include a number of these reports, which will allow the State to monitor the accuracy of its cost planning versus actual expenditures.

The following table provides an overview of the standard Controlling module reports.

Exhibit 2.12.2-8 Controlling Module Reports

Report Name	Description	Standard Report
Cost Elements (including revenue elements)	This report displays an overview of the costs posted on cost elements by business area or functional area. Since revenue elements are a type of cost element, they are included on this report.	Cost Elements: Breakdown by Business Area & Cost Elements: Allocations Between Company Codes/Business Areas
Reconciliation	This report enables the comparison of costs posted on the individual cost elements with the expenses recorded in Financial Accounting. In the report you can search for those accounts for which a reconciliation between Financial Accounting and Controlling is required.	CO/FI Reconciliation
Plan/Actual Comparisons	These reports list the actual and planned values for cost-collecting objects in Controlling, such as cost centers, cost elements, and internal orders.	Cost Centers, Cost Elements, Activity Types, SKFs, Internal Orders, & Internal Orders by Cost Element
Actual/Actual Comparisons	These reports show actual revenue and expenditures values posted to objects, such as cost centers, cost elements, and internal orders by period or year. These reports allow for the comparison of actual costs from one year or period with those from another year or period.	Cost Centers (quarterly and yearly) & Internal Orders (yearly, quarterly, and by period)
Planning Reports	The planning overview displays an overview of planned values on individual objects in Controlling, such as cost centers, cost elements, and internal orders.	Cost Centers: Planning Overview
Prices	The price report provides an overview of the activity prices for activity types by cost center.	Cost Centers: Activity Prices

InfoCubes represent predefined sets of data that will be accessible for authorized users from the SCEIS Business Warehouse. The InfoCubes contain information that is transferred from the production system into a repository on a predefined basis. The project team will review the standard InfoCubes within the solution to confirm applicability for the specific functional

reporting needs as identified above. The following table describes the standard controlling InfoCubes.

Exhibit 2.12.2-9 Controlling InfoCubes

InfoCube Name	Purpose/Description
Costs and Allocations	This InfoCube contains all costs and quantities on cost centers (plan and actual using delta-extraction) that were transferred from the source system(s). In addition to complete information on variances, the InfoCube also contains the extended partner information (such as the partner cost center with master data) for the allocation relationships. In allocations, the cost center can function as the sender or receiver of activities (quantities) or costs. The cost centers are credited or debited accordingly.

Workflow

If a data entry clerk has parked a document, the clerk can manually contact the appropriate supervisor for approval of the parked document or use the SCEIS solution workflow capability.

Listed below are the benefits of utilizing workflow:

- A tool for increasing the efficiency of office communication and organization
- Allows automated document release (posting the document) and/or approval procedures involving two persons
- Increases efficiency of business processes by linking tasks to employees or departments within the organization
- Reduces time and cost in managing business processes by coordinating people, work steps and the data to be processed
- Increases transparency and quality

Through workflow, multiple approval processes can be configured. When a document is parked, it is triggered by threshold amounts for release to be approved. However, only three levels of amount approvals are possible. The amount-based release procedure will determine which person of responsibility should be notified (the approval path between employees or organizational departments must be configured), and the system will automatically place a message in the approver's mailbox to review the parked document. Upon review, the approver can complete (insert additional required information), approve or reject the parked document. If rejected, a mail

message will be sent to the originator of the parked document. If completed, the parked document is ready to be posted (called “release” in workflow).

If certain information is not available during document creation, the document can be saved as a held document. As with a parked document, when a held document is saved, no financial accounting entries are posted. Holding a document differs from parking a document in the following ways:

- The User assigns a temporary document number to the held document, which is controlled by the User ID. Others cannot view or change this held document.
- Held documents cannot be viewed in account display. Held documents can only be displayed during standard document entry time using the Open Held Document push-button.

Imaging

Imaging requirements have been identified for the documents that impact the controlling processes. Imaging within Controlling refers to the scanning and capturing of information that is required to be maintained based on specified business rules or other requirements. The following table identifies the types of documents and information to be included in the imaging process and the point in the process to which the imaging activities would generally occur.

Exhibit 2.12.2-10 Imaging Integration Points

Scanned Documentation	Approval Process	Imaging Integration Point
Master Data Forms	No	Upon creation, change, and deletion of master data a form will be filled out and turned in.
Manual Cost Movements	No	At times it may be necessary to perform manual cost movements. A form will be turned in for this cost movement.

User Roles

Based on the business processes supporting cost accounting, the following standard roles have been identified. The impact to cost accounting from these user transactions is similar to other data element postings.

Exhibit 2.12.2-11 Controlling User Roles

User Role	Description
Central Controlling Master Data Maintenance	Controlling Master Data Maintenance users will maintain the various master data elements within the Controlling module, such as cost center, cost element, activity type, and statistical key figure.
Central Controlling Periodic Processing	Central Controlling Periodic Processing users will perform periodic processing functions in the Controlling module, such as executing allocations.
Agency Controlling Periodic Processing	Controlling Periodic Processing users will perform periodic processing functions in the Controlling module, such as simulating allocations, assigning prices to activity types, and assigning quantities to statistical key figures.
Agency Controlling Planning	Controlling Planning users will be able to assign planned values to the objects in the Controlling module, as well as make changes to these planned values.
Agency Controlling Viewer	Users with the Controlling Viewer role will be able to view most transactional data in Controlling, as well as execute Controlling module reports.
Central Controlling Closer	Controlling Closer users will be able to perform all controlling-related closing activities.